

**CLAIMS**

1. A method for obtaining a first representation of a digital image by means of a first output device and a second representation of  
5 said digital image by means of a second output device, wherein  
said first output device has a first, device dependent, colorant  
space and said second output device has a second, device  
dependent, colorant space, the method comprising:

10 determining a transformation for transforming a set of  
colorant values of a pixel of said digital image from said first  
to said second colorant space;

selecting a particular set of colorant values in said first  
colorant space; and

15 modifying said transformation for said particular set of  
colorant values.

2. The method according to claim 1 wherein said first output device  
is a printing device and said second output device is a proofing  
device.

20 3. The method according to claim 1 further comprising:

obtaining first data on a first transformation from said  
first colorant space to a device independent color space;

25 obtaining second data on a second transformation from said  
device independent color space to said second colorant space;  
and

30 using said first data and said second data in said  
determination of said transformation for said transforming said  
set of colorant values of said pixel of said digital image from  
said first to said second colorant space;  
wherein said second colorant space is a CMYK space.

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4. The method according to claim 3 wherein said device independent color space is CIELAB space.
5. The method according to claim 3 wherein said first colorant space is another CMYK space.
6. The method according to claim 4 wherein said first colorant space is another CMYK space.
- 10 7. The method according to claim 1 further comprising retaining a value of a quantity selected from the group of a psychophysical quantity and a psychovisual quantity for said particular set of colorant values.
- 15 8. The method according to claim 2 further comprising retaining a value of a quantity selected from the group of a psychophysical quantity and a psychovisual quantity for said particular set of colorant values.
- 20 9. The method according to claim 6 further comprising retaining a value of a quantity selected from the group of a psychophysical quantity and a psychovisual quantity for said particular set of colorant values.
- 25 10. The method according to claim 1 further comprising:  
determining a color separation of a specific color in said first colorant space into one or more colors in said second colorant space, wherein said specific color is selected from the group of primary and secondary colors in said first colorant space, and wherein said one or more colors are selected from the group of primary and secondary colors in said second colorant space;  
30 modifying said color separation; and

using said modified color separation in said modification of said transformation for said particular set of colorant values.

11. The method according to claim 7 further comprising:

5        determining a color separation of a specific color in said first colorant space into one or more colors in said second colorant space, wherein said specific color is selected from the group of primary and secondary colors in said first colorant space, and wherein said one or more colors are selected from the  
10      group of primary and secondary colors in said second colorant space;

modifying said color separation; and

using said modified color separation in said modification of said transformation for said particular set of colorant values.

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12. The method according to claim 1 further comprising:

obtaining information from a user; and

using said information for said modification of said transformation for said particular set of colorant values.

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13. The method according to claim 7 further comprising:

obtaining information from a user; and

using said information for said modification of said transformation for said particular set of colorant values.

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14. The method according to claim 10 wherein from a user certain information is obtained relating to said modification of said color separation and wherein said certain information is used for said modification of said transformation for said particular set of colorant values.

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15. The method according to claim 11 wherein from a user certain information is obtained relating to said modification of said color separation and wherein said certain information is used

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for said modification of said transformation for said particular set of colorant values.

16. A method for obtaining a first representation of a digital image  
5 by means of a first output device and a second representation of said digital image by means of a second output device, wherein said first output device has a first, device dependent, colorant space and said second output device has a second, device dependent, colorant space, the method comprising:

10 determining a transformation from said first colorant space to said second colorant space, wherein said transformation comprises applying a first table followed by applying a second table, wherein said first table is for transforming a set of colorant values of a pixel of said digital image from said first colorant space to a set of color values in a device independent color space, and wherein said second table is for transforming said set of color values in said device independent color space to a set of colorant values in said second colorant space;

15 20 selecting in said first colorant space a particular colorant from the group of primary and secondary colors in said first colorant space;

obtaining from a user a desired modification of said transformation for said particular colorant; and

25 storing data related to said desired modification in said second table.

17. The method according to claim 16 further comprising selecting said particular colorant from the group of primary colors in said first colorant space.

30 18. The method according to claim 16 wherein said first output device is a printing device and said second output device is a proofing device.

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19. The method according to claim 16 further comprising retaining a value of a quantity selected from the group of a psychophysical quantity and a psychovisual quantity when transforming said particular colorant from said first to said second colorant space.

20. A data processing system for obtaining a first representation of a digital image by means of a first output device and a second representation of said digital image by means of a second output device, wherein said first output device has a first, device dependent, colorant space and said second output device has a second, device dependent, colorant space, the system comprising:  
means for determining a transformation for transforming a set of colorant values of a pixel of said digital image from said first to said second colorant space;  
means for selecting a particular set of colorant values in said first colorant space; and  
means for modifying said transformation for said particular set of colorant values.

21. A data processing system for obtaining a first representation of a digital image by means of a first output device and a second representation of said digital image by means of a second output device, wherein said first output device has a first, device dependent, colorant space and said second output device has a second, device dependent, colorant space, the system comprising:  
means for determining a transformation from said first colorant space to said second colorant space, wherein said transformation comprises applying a first table followed by applying a second table, wherein said first table is for transforming a set of colorant values of a pixel of said digital image from said first colorant space to a set of color values in a device independent color space, and wherein said second table is for transforming said set of color values in said device

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independent color space to a set of colorant values in said second colorant space;

means for selecting in said first colorant space a particular colorant from the group of primary and secondary colors in said first colorant space; and

means for obtaining from a user a desired modification of said transformation for said particular colorant; and storing data related to said desired modification in said second table.

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22. A computer program product for transforming pixels of a digital image from a first, device dependent, colorant space of a first output device to a second, device dependent, colorant space of a second output device, the computer program product comprising:

15 first program instructions for selecting a particular set of colorant values in said first colorant space; and

second program instructions for modifying for said particular set of colorant values a transformation from said first to said second colorant space, thus obtaining a modified transformation.

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23. The computer program product according to claim 22 further comprising a computer readable medium wherein said first and second program instructions are recorded on said medium.

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24. The computer program product according to claim 22 further comprising third program instructions for retaining a value of a quantity selected from the group of a psychophysical quantity and a psychovisual quantity for said particular set of colorant values.

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25. A computer program product for transforming by a transformation pixels of a digital image from a first, device dependent, colorant space of a first output device to a second, device dependent, colorant space of a second output device, wherein

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said transformation comprises applying a first table followed by applying a second table, wherein said first table is for transforming a set of colorant values of a pixel of said digital image from said first colorant space to a set of color values in a device independent color space, and wherein said second table is for transforming said set of color values in said device independent color space to a set of colorant values in said second colorant space, the computer program product comprising:

10       first program instructions for selecting in said first colorant space a particular colorant from the group of primary and secondary colors in said first colorant space;

15       second program instructions for obtaining a desired modification of said transformation for said particular colorant from a user; and

15       third program instructions for storing data related to said desired modification in said second table.

26. The computer program product according to claim 25 further comprising a computer readable medium wherein said first, second and third program instructions are recorded on said medium.

27. The computer program product according to claim 25 further comprising fourth program instructions for retaining a value of a quantity selected from the group of a psychophysical quantity and a psychovisual quantity for said particular colorant.